In the Specification

Please amend paragraph [0027] as follows:

[0027] Referring now to Fig. 4, the steps of a control algorithm to adaptively regulate cooling of a torch are set forth. The process begins at START 100 with powering-up of the power source, the coolant assembly, and other components of the welding process are likewise powered. Once the user identifies the welding process to be used through appropriate switches on the power source, a determination is made at 102 whether a TIG welding process is to be carried out. Since some welding processes do not require coolant circulation and power sources are capable of carrying out more than one process, the aforementioned determination is preferred and reduces the likelihood that an operator would forget to activate the cooling system for a TIG welding session. If a TIG welding process is not selected 102b, the cooling system is placed in a stand-by mode 116. If TIG welding is selected 102a, the controller 50 then detects whether a valid arc 104 is present at the weld. That is, the controller determines if a welding arc 52 has been struck between the welding torch 32 and the work piece 36 ~~32~~ indicative of welding commencement. If a valid arc is present 104a, the controller 50 transmits a circulation commencement signal to the cooling system 44 to activate motor 58 and pump 48 at 106 such that coolant is circulated through the welding torch. If a valid arc is not detected 104b, the controller determines if remote operation has been activated 108. If so 108a, coolant is caused to circulate upon manual start-up of the welding power source 12 at step 110, 110a. The controller then transmits a circulation commencement signal to activate the solenoid pump 48 and cause coolant flow through the torch at step 106. If the controller does not detect a manual start 110b or remote operation 108b, the controller determines if a specified time period has expired after termination of the arc at 112. If the time period has not expired 112a, coolant circulation is maintained at 106. If not 112b, the algorithm proceeds to step 114. The controller is configured to regulate the integrated cooling system such that coolant flow is maintained after deactivation of the welding torch until a temperature of the liquid coolant or torch falls below a certain value. The controller 50 compares temperature feedback from a sensor with a first set point temperature to determine if circulation should be maintained. In this regard, if the temperature of the liquid coolant does not exceed the temperature set point 114b, then the integrated cooling system 44 is placed in stand-by mode 116. That is, the controller 50 is configured to repeatedly detect a

coolant temperature signal from one or more temperature sensors and if coolant temperature exceeds a threshold 114a, circulation continues independent of welding torch activation status.